Steps to Build the Lookalike Model:

1. **Load and Prepare Data**:
    - We need the customer information from Customers.csv, product data from Products.csv, and transaction data from Transactions.csv.
    - We'll need to merge these datasets and process them into a format that represents the customer behavior and profile.
2. **Feature Engineering**:
    - Create a **customer feature vector** that represents:
        - **Customer demographic information** (e.g., region, signup date).
        - **Transaction history** (e.g., number of purchases, frequency, and types of products bought).
        - **Product preference** (e.g., product categories purchased, average spending per category).
3. **Calculate Similarity**:
    - Compute **similarity scores** using a distance metric like **cosine similarity** or **Euclidean distance** between the customer feature vectors.
    - For each customer, calculate the similarity scores with all other customers and recommend the top 3 most similar customers.
4. **Output the Lookalike Recommendations**:
    - For each customer from C0001 to C0020, find the top 3 similar customers and their respective similarity scores.
    - Save the results in a CSV file named Lookalike.csv.

5. Output the Results

The Lookalike.csv will contain:

CustomerID: The customer for whom we are recommending lookalikes.

LookalikeID: The ID of the recommended similar customer.

SimilarityScore: The similarity score between the two customers.

6. Evaluation

Accuracy: Since this is an unsupervised model, we don't have labeled data to directly evaluate its accuracy. However, the quality of the recommendations can be assessed based on how relevant they are to human experts or through manual inspection.

Quality of Recommendations: The model assigns higher similarity scores to customers who share similar **transaction behaviours and Demographics**.